



AUTUMN WHEAT AFTER PAST CROPS AGROTECHNICS OF GROWTH

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Article history:	Abstract:
<p>Received: 21st October 2021 Accepted: 20th November 2021 Published: 27th December 2021</p>	<p>In the conditions of typical irrigated-gray soils, soil fertility and winter wheat yield when sowing cotton, corn, peas, moss, rapeseed as a past crop in the areas free of winter wheat is 15.4 ts / ha of additional winter wheat in the years of the experiment compared to the average control variant. and the rate of return increased from 18.9 to 27.2%.</p>
<p>Keywords: typical - gray soils, past crops, cotton, corn, peas, moss, rapeseed, soil fertility, crop rotation, agrotechnics, manure, root residues, winter wheat, quality indicator, cereals, yield.</p>	

INTRODUCTION

Today, increasing the yield and quality of cereals, including winter wheat, is important in meeting the food needs of the world's population.

In order to increase the cultivation of winter wheat, to increase the fertility of the soil on a scientific basis, to determine the optimal place for crop rotation, to adhere to it, to use advanced methods of cultivation, to develop a rich and high-quality grain crop. output and implementation is one of the urgent tasks of the grain industry.

MATERIALS AND METHODS.

The research was carried out in Yakkabag district of Kashkadarya region in the conditions of typical gray soils of the farm "Razzoq ota Meyliev", which is irrigated from the foothills, with an average mechanical composition of sand and groundwater at a depth of 8-10 meters. In the experiment, the object of the experiment was "Tanya" variety of winter wheat.

Research work "Methods of field experiments" UzPITI "Methods of conducting field experiments" Ministry of Agriculture and Water Resources of the Republic of Uzbekistan; Grain and legumes on irrigated lands Andijan Research Institute; Conducted on the basis of methodological manuals of agricultural research and production centers of Uzbekistan [1; 146-b.].

THE RESULTS OBTAINED.

Experiments have shown that the highest grain yields of winter wheat planted after various predecessors such as cotton, corn, peas, moss, rapeseed are in the moss and rapeseed fields in a short-rotation rotation system to maintain and increase soil fertility under typical irrigated gray soils.

In irrigated areas, short-rotation cotton-grain rotation systems are used. In the organization of seed production should pay attention to the sowing of seed wheat after its predecessors, which does not contaminate the purity of the variety, ensures high yields and quality seeds. Therefore, it is not recommended to place wheat seed crops after cereal crops. Even after crops whose seeds are difficult to separate from wheat seeds, it is not advisable to sow wheat for seed.

In the technology of growing wheat planted in the fall on irrigated lands, tillage is one of the key factors. When plowed at the right time, the air, water and salt exchange regime of the soil improves, microbiological processes are accelerated, as a result, soil fertility changes for the better and winter wheat yield increases.

In irrigated lands for winter wheat, it is desirable to plow the soil to a depth of 28–30 cm. The depth of plowing can vary depending on the mechanical composition of the soil, the thickness of the plowed layer, when the soil is mastered and other factors.

It absorbs 35-37 kg of nitrogen, 12-13 kg of phosphorus, 23-25 kg of potassium to produce 1 ton of grain and corresponding straw for winter wheat.

It is recommended to apply N180P90K60 kg per hectare for winter wheat, when the wheat is provided with the optimal amount of moisture during the growing season. The maximum absorption of nitrogen in the soil by the plant corresponds to the tube-sprouting phase. When the amount of nitrogen fertilizers in wheat sown in autumn is 180 kg per hectare, 30 kg is applied before planting, 75 kg in early spring, and 75 kg in the tubing phase. In the next planting, intermediate crops are placed in 2-3 fields should be planted for siderate and animal feed. Intermediate crops to soil fertility, regardless of the purpose for which it is used has a positive effect, reduces salinity, reducers in the soil improves performance [4; 1758-1767-b.].

The protein content of irrigated wheat grains can be observed to decrease as the moisture content increases. Therefore, in order to increase the quality, protein and gluten content along with the yield, when nitrogen feeding of wheat leaves (30 kg / ha of urea per hectare) is carried out in the germination phase, the grain protein content is increased by 1.5-2% and gluten content by 3-4%. can increase.

When phosphorus fertilizers are used in combination with nitrogen, potassium fertilizers, their effectiveness increases. On irrigated lands, it is recommended to apply 90 kg of phosphorus per hectare of wheat. In autumn, wheat rapidly absorbs phosphorus fertilizers in the first 4-5 weeks of the sowing period. Phosphorus fertilizers have a positive effect on the rapid development of the root system of plants, its quantity and volume.

According to the results of experiments, legumes (mosh, peas) on irrigated lands accumulate 50-60 kg to 80-100 kg of biological nitrogen per hectare, and planting rapeseed as a siderate crop improves soil microbiological activity, soil nutrient and water regime, ie soil fertility. along with increasing the positive effect on the phytosanitary condition, saving mineral fertilizers.

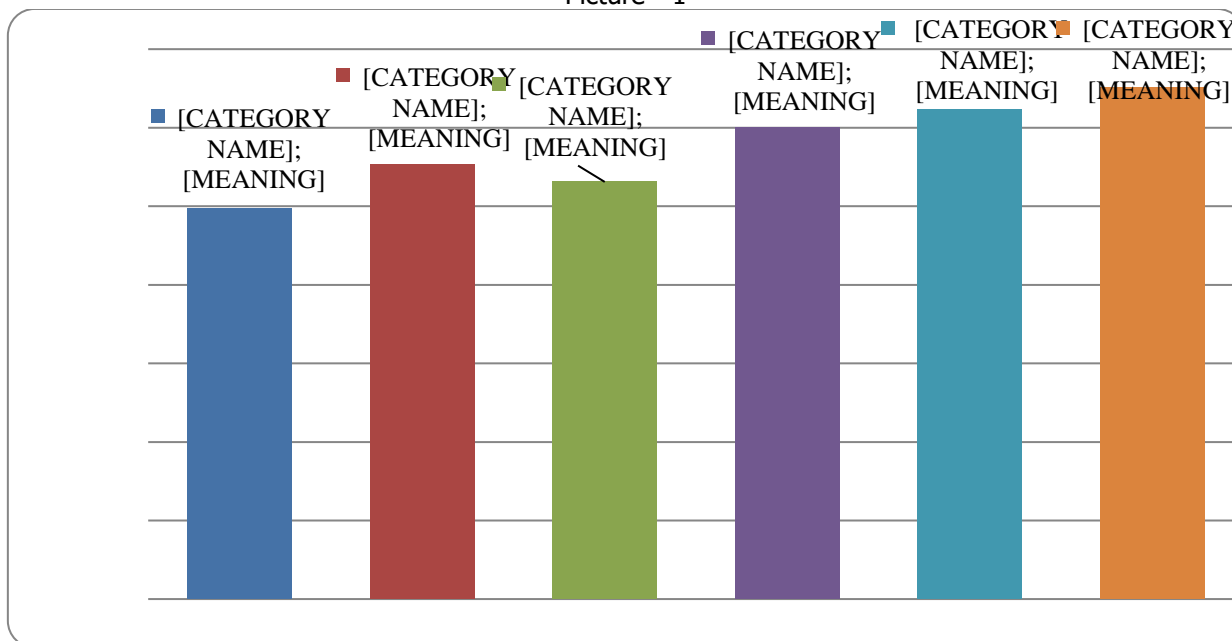
In the experiment, the amount of nutrients in the roots and root residues in the soil in the winter wheat (control) variant when sowing 5 million germinated seeds, the root and root residues averaged 3.56 t / ha, of which N - 20.47 kg / ha, P -11 , Nutrient reductions of 30 kg / ha and K-30.05 kg / ha were observed.

B.Kholiqov, A.Iminov [3; 161-163-p.], F.Namozov, [2; [P. 28] found that many nutrients were returned to the soil as a result of planting moss and other legumes as a secondary crop after winter wheat. N-36.89 kg / ha of P – 15.62 kg / ha and K-47.37 kg / ha of nutrients were returned to the soil, while in corn, an average of 4.27 t / ha of total root and root residues were collected. while this figure led to the return of nutrients in the soil N-23.11 kg / ha, P-12.40 kg / ha, K-15.61 kg / ha.

The pea crop was left with an average of 2.55 t / ha of root and root residues for three years, at the expense of N-24.03 kg / ha, P -11.71 kg / ha, K-16.27 kg / ha, and moshda. the total root and root residues were 2.14 t / ha, while in the soil at its expense N-29.48 kg / ha, P-15.18 kg / ha, K-28.47 kg / ha of nutrients were returned to the soil.

In the case of rapeseed, the amount of manure and root residues left in the soil was 5.14 t / ha, and at the expense of root and manure remains in the soil was N-30.72 kg / ha, P-17.26 kg / ha, K-49.27 kg. / ha of nutrients were found to be returned.

Picture - 1



The average yield of winter wheat is 49.7 t / ha for 3 years, 53.1 t / ha for winter wheat after corn, 55.3 t / ha for winter wheat after cotton, and 60 t / ha for winter wheat after peas. / ha, 62.3 ts / ha after rapeseed, 65.1 ts / ha of grain yield was obtained when sowing winter wheat after rapeseed (Fig. -1).

CONCLUSION.

Yields of winter wheat after the previous crop were 3.4 t / ha higher than the average control, and 5.6 t / ha more than the average control after cotton. As a result, the yield of winter wheat did not increase significantly, with an additional yield of 5.6 ts / ha when sown with winter wheat after cotton, although this figure is considered good, but slightly lower than the variants planted with peas, mosh, rapeseed. As a past crop, the highest yields were achieved in the winter wheat sown variants after rapeseed, and an additional winter wheat yield of 15.4 ts / ha compared to the control was found.

REFERENCES:

1. Methods of conducting field experiments. T. 2007, -146 pages.
2. Namozov F. Improving short-rotation cropping systems in increasing soil fertility and cotton yields. doctoral dissertation abstract. - Tashkent: 2016.-B. 28.
3. Khalikov B.M., Iminov A.A. The role of secondary and intermediate crops in increasing soil fertility // Variety renewal, placement and maintenance technology. Republican scientific-practical conference collection of articles. -Tashkent, UzPITI, 2001. -P.161-163.
4. Tejada M., Gonzalez.J.L., Garsna-Martnnez A.M., Parado J. Effects of different green manures on soil biological properties and maize yield //Bioresource Technology Volume 99, Issue 6, April 2008. Pages 1758-1767.